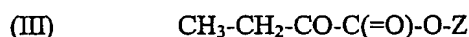
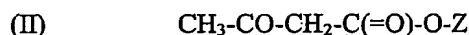
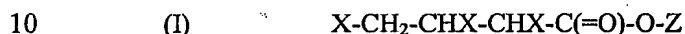


## WE CLAIM:

1. A method of increasing the anti-tumor activity of an inhibitor of histone deacetylase(s) (HDAC) which comprises sequential administration to a mammal or host cells of a chemotherapeutically effective amount of an oxyalkylene containing HDAC inhibitor for an induction period after which a chemotherapeutically effective amount of a member of the class consisting of tubulin interactors, DNA-interactive agents, DNA-alkylating agents, and platinum complexes is administered to the mammal or host cells.

2. The method of claim 1 where the oxyalkylene containing HDAC inhibitor is a compound having the formulas (I), (II), and (III):



wherein X is H, or one X only may be OH; Z is  $-CHR-O-(O=C)-R'$ , R represents a member selected from the group consisting of hydrogen and alkyl, and R' represents a member of the group consisting of alkyl, aminoalkyl, aralkyl, aryl, alkoxy, aralkoxy and aryloxy, in which aryl by itself, and aryl in aralkyl, aralkoxy and aryloxy, are each selected from the group consisting of sub-groups (a) and (b), wherein (a) is unsubstituted phenyl, naphthyl, furyl or thienyl, and (b) is phenyl, naphthyl, furyl or thienyl, each of which is substituted by at least one substituent selected from the group consisting of alkyl, alkoxy or halogen, provided that in (I) when X is H and R' is propyl, then R is alkyl which contains at least three carbon atoms.

3. The method of Claim 1 wherein the oxyalkylene containing compound is pivaloyloxymethyl butyrate.

4. The method of claim 1 wherein the tubulin interactor is taxol, paclitaxel or docetaxel, the DNA-interactive agent is a pyrimidine-based nucleoside analog or fludarabine, the DNA-alkylating agent is dacarbazine, temozolomide or cyclophosphamide and the platinum complex is cisplatin, carboplatin or oxaliplatin.

5       The method of claim 4 wherein the pyrimidine-based nucleoside analog is gemcitabine.

6       The method of claim 1 wherein the induction period is from about more than 2 to about 120 hours.

5       7.       The method of Claim 6 wherein the induction period is about 24 to 96 hours.

8.       The method of Claim 7 wherein the induction period is about 48 to 84 hours.

10      9.       The method of Claim 8 wherein the induction period is about 54 to 78 hours.

9.       The method of Claim 1 wherein the mammal is human.

10.      The method of Claim 1 wherein the effective amount of the oxyalkylene containing compound, in combination with a chemotherapeutic agent, is administered in a dosage range from about 0.01 g/m<sup>2</sup>/day to about 10 g/m<sup>2</sup>/day.

15      11.      The method of claim 5, wherein the effective amount of gemcitabine in combination with an oxyalkylene containing compound, is administered in a dosage range from about up to 10000, preferably 100 to 4000 mg/m<sup>2</sup> for a treatment period up to twelve weeks.

20      13.      The method of claim 4, wherein the effective amount of paclitaxel or docetaxel in combination with an oxyalkylene containing compound, is administered in a dosage range from about 10 mg/m<sup>2</sup> to about 200 mg/m<sup>2</sup> per course of the treatment.

14.      The method of claim 13, wherein docetaxil is administered in a dosage between 10 mg/m<sup>2</sup> to 200 mg/m<sup>2</sup>, preferably 50 mg/m<sup>2</sup> to 120 mg/m<sup>2</sup>.

25      15.      The method of claim 4 wherein the effective amount of carboplatin in combination with an oxyalkylene containing compound, is administered in a dosage range from about 10 mg/m<sup>2</sup> to about 1000 mg/m<sup>2</sup> per course of the treatment.

16. The method of claim 15 wherein the effective amount of carboplatin is administered in a dosage range from about 100 mg/m<sup>2</sup> to 500 mg/m<sup>2</sup>.

17. The method of claim 4 wherein the effective amount of oxaliplatin in combination with an oxyalkylene containing compound, is administered in a dosage  
5 range from about 10 mg/m<sup>2</sup> to about 250 mg/m<sup>2</sup> per course of the treatment.

18. The method of claim 4 wherein the effective amount of cisplatin in combination with an oxyalkylene containing compound, is administered in a dosage range from about 1 mg/m<sup>2</sup> to 300 mg/m<sup>2</sup> per course of the treatment.

19. The method of claim 4 wherein the effective amount of dacarbazine is in  
10 combination with an oxyalkylene containing compound, is administered in a dosage range from about 0.5 to 10 mg/kg/day for a course of the treatment of ten days.

20. The method of claim 4 wherein the effective amount of temozolomide is administered in dosages of 500 to 1250 mg/m<sup>2</sup> per course of the therapy.

21. The method of claim 3 wherein pivaloyloxymethyl butyrate is  
15 administered at a dosage of about 0.5 g/m<sup>2</sup>/day to 5 g/m<sup>2</sup>/day for three consecutive days followed by about 50 mg/m<sup>2</sup> to 100 mg/m<sup>2</sup> of docetaxel on Day 4.

22. The use of a HDAC inhibitor in the manufacture of a chemotherapeutic preparation for increasing the anti-tumor activity of said HDAC inhibitor which includes the use of a chemotherapeutic agent of the class consisting of tubulin interactors, DNA-  
20 interactive agents, DNA-alkylating agents, and platinum complexes, said preparation being adapted for an induction period during which the HDAC inhibitor is administered, followed by administration of said chemotherapeutic agent.